Remarks

Claims 1-6 were pending. Claims 1-6 have been cancelled. New claims 7- 22 have been added. Accordingly, claims 7-22 are presented and at issue.

1. 35 USC §112 Rejections

The Examiner rejected Claims 1-6 under 35 USC §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The Examiner noted that claim 1 was generally confusing because the second, third, and fourth workstations set forth overlapping alternatives. Accordingly, claims 1-6 have been cancelled. New claims 7-22 have been drafted so as to not include overlapping alternatives.

2. 35 USC §102 Rejections

The Examiner rejected claims 1-6 under 35 USC 35 §102(e) as being anticipated by the Joao patent. Joao discloses an apparatus for providing healthcare information. The elements of the Joao apparatus include a processor for generating a diagnostic report containing at least one possible diagnosis. However, no disclosure is provided that describes the manner in which this possible diagnosis is developed or generated. Joao also includes a transmitter for transmitting the diagnostic report to a healthcare provider, and a receiver for receiving a final diagnosis from a healthcare provider. In response to the final diagnosis, the processor generates a claim for submission to a healthcare payer or insurer.

Joao gathers patient information in a single step, by merely having the patient fill out an online form. Questions are not specifically tailored to the facts and circumstances of a given patient. Nor are questions asked in an iterative manner, based upon earlier patient responses to questions. Therefore, Joao is not a patient-interactive system. The patient basically fills out a template which is then forwarded to a healthcare provider for final diagnosis, and the final diagnosis is forwarded to an insurance carrier for payment.

In view of the foregoing considerations, claims 1-6 have been cancelled, and new claims 7-22 have been drafted. Claims 7-22 are directed to novel subject matter in view of the cited

prior art. For example, consider newly-drafted independent claim 7. This claim is directed to a computer-executable iterative method of managing physician-patient interactions. Note that the apparatus of Joao does not perform any iterations on the entered patient data. The method of claim 7 includes the steps of receiving preliminary patient information, recording patient symptoms in memory, selecting one or more specific questions in response to the receipt of preliminary patient information, and transmitting the one or more specific questions to at least one of the patient and a medical practitioner. Specific patient information is the received in response to the one or more specific questions. Note that Joao does not disclose or suggest such a tiered, custom-tailored, interactive information-gathering approach.

Next, the preliminary patient information and specific patient information are placed into a formatted report. At least one proposed treatment strategy and/or medical assessment is generated, based upon the formatted report (i.e., based upon the preliminary information and/or the specific information). The proposed treatment strategy and/or medical assessment is incorporated into the formatted report to generate a fully-integrated proposed medical report. The proposed medical report is transmitted to a physician. The physician adds information to, and/or modifies information from, the report to provide an edited medical report. The edited medical report is received from the physician and stored in computer memory with the patient identifier.

Dependent claim 8 is directed to further novel subject matter. The step of selecting specific questions is characterized as further including the steps of selecting one or more follow-up questions based upon the received specific patient information, and receiving further patient information in response to the follow-up questions, so as to provide question branching capabilities wherein a sequence of relevant questions are selected and patient information is collected. The Joao scheme includes no such question branching capabilities. Dependent claims 9-22 are directed to further novel subject matter beyond that which is claimed in independent claim 7 and intermediate claim 8.
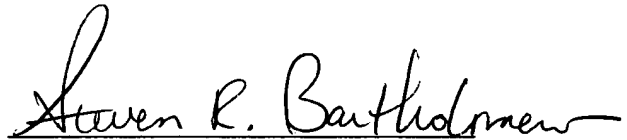
3. Conclusion

In view of the present Amendment, taken in conjunction with the foregoing Remarks, it is submitted that newly-drafted claim 7-22 are allowable over the prior art of record. It is further

submitted that newly-drafted claim 7-22 are allowable over the prior art of record. It is further

submitted that the above-referenced patent application is in condition for allowance, and such

action by the Examiner is earnestly solicited.
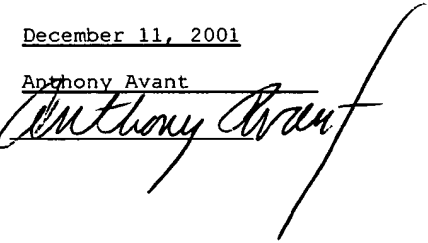
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CERTIFICATE OF MAILING

I hereby certify that I have a reasonable basis that this paper, along with any referred to above, (i) are being deposited with the United States Postal Service on the date shown below with sufficient postage as first class mail in an envelope addressed to Commissioner of Patents and Trademarks, Washington, D.C. 20231,

DATE: December 11, 2001

NAME: Anthony Avant

SIGNATURE:

MARKED UP VERSION OF CLAIMS

~~1.   A data processing system for implementing program controlled management of~~
~~physician-patient interactions, comprising:~~

~~(a)   a first workstation program adapted for accepting biographical and/or insurance~~
~~information about a patient;~~

~~(b)   a second workstation program adapted for accepting information about at least~~
~~one of: patient complaints, patient symptoms, medication, and responses to triage questions~~
~~relating to one or more reasons for the patient's visit, so as to enable the system to formulate one~~
~~or more specific questions directed to a medical problem of the patient.~~

~~(c)   a third workstation program adapted for accepting vital sign data including at least~~
~~one of: temperature, blood pressure, pulse, weight; further adapted for accepting at least one of:~~
~~one or more reasons why the patient is seeking medical treatment, responses to medical~~
~~questions, whether the visit is for an urgent matter, and data relating to potentially emergent~~
~~problems;~~

~~(d)   a fourth workstation program adapted for accepting information obtained from the~~
~~patient during a medical check-up, including information indicative of patient thoughts on his or~~
~~her complaint and potential diagnosis of the complaint, the fourth workstation module also~~
~~adapted to provide a physician with optional information about patient history from previous~~
~~visits;~~

~~(e)   a database server for providing access to the first, second, third and fourth~~
~~workstation programs so as to form a local area network used to store medical information~~
~~related to a plurality of patients, the database server adapted to capture and manage at least one~~

of: costs of medical care, utilization of one or more physicians, laboratory data, indicia of disease, referral data, surgery data and pathology data;

(f) a communication server adapted for connection to at least one of: the Internet, a hospital computer network, and an insurance company computer network, to access information accepted by any of the first, second, third and fourth workstation programs.

2. The data processing system of claim 1 wherein each of the first, second, third and fourth workstation programs are executed on one or more workstations, each workstation including a display terminal with a touch sensitive screen to display questions and information, a mouse and a keyboard to accept information, a microphone to record information, and one or more speakers or a headset.

3. The data processing system of claim 1 wherein the database server includes a mechanism to connect with any of a plurality of computer-based patient record systems, thereby ensuring completeness of data and avoiding redundant entry of data across multiple systems.

4. The data processing system of claim 1 further including a mechanism by which a physician may create and refine patient assessment processes and/or modify clinical algorithms and guidelines.

5. The data processing system of claim 1 wherein the second workstation program includes a system response analyzer subroutine that operates as a background software process so as to track inconsistent information entries that are indicative of a failure on part of the patient to

understand the nature and operation of the system, and/or a patient uninterested in participating in the process of entering information into the system, by checking the patient's responses after the second workstation program accepts the information, so as to determine if this information is consistent with previously entered information.

6.   The data processing system of claim 5 wherein the system response analyzer, after determining one or more patient responses to be inconsistent, generates an output indicative of such inconsistency, and runs an instructional prompting program informing the patient of the inconsistency and/or how to avoid such inconsistency.

7. A computer-executable iterative method of managing physician-patient interactions, the method comprising the steps of:

(a) receiving preliminary patient information including a patient identifier and one or more symptoms or complaints;

(b) recording the one or more symptoms or complaints in computer memory;

(c) selecting one or more specific questions in response to the receipt of preliminary patient information, and transmitting the one or more specific questions to at least one of the patient and a medical practitioner;

(d) receiving specific patient information in response to the one or more specific questions;

(e) arranging the preliminary patient information and specific patient information into a formatted report;

(f) retrieving at least one proposed treatment strategy and/or medical assessment based

upon the formatted report, and incorporating the proposed treatment strategy and/or medical assessment into the formatted report to generate a proposed medical report;

(g) transmitting the proposed medical report to a physician;

(h) receiving an edited medical report from the physician which modifies and/or adds information to the proposed medical report; and

(i) storing the edited medical report in computer memory with the patient identifier.

8. The method of claim 7 wherein step (d) further includes the steps of selecting one or more follow-up questions based upon the received specific patient information, and receiving further patient information in response to the follow-up questions, so as to provide question branching capabilities wherein a sequence of relevant questions are selected and patient information is collected.

9. The method of claim 8 wherein the follow-up questions are unimodal.

10. The method of claim 8 wherein the follow-up questions are selected based upon at least one of: (a) a patient's level of education, (b) a patient's age, (c) a patient's gender, (d) a patient's ethnicity, and (e) a patient's socioeconomic background.

11. The method of claim 8 wherein at least one of the specific questions or at least one of the follow-up questions include a triage question to highlight one or more areas of immediate concern.

12. The method of claim 8 wherein at least one of the specific questions or at least one of the follow-up questions include a screening question that covers a health issue.

13. The method of claim 8 wherein step (d) further includes the step of generating concatenated text strings from the received specific patient information and the received further

patient information.

14. The method of claim 13 wherein the concatenated text strings are used to generate one or more confirmation messages, the confirmation messages being transmitted to at least one of a patient and a medical practitioner, by which the patient and/or the medical practitioner can either confirm or deny receipt of correct specific patient information and/or correct further patient information.

15. The method of claim 13 wherein the concatenated text strings are used to generate audio and/or voice signals which are then transmitted to at least one of a patient and a medical practitioner.

16. The method of claim 7 wherein step (e) further includes the step of analyzing the formatted report in real time using Boolean logic based upon expert-determined criteria for identifying at least one of symptom complexes and interrelated medical problems.

17. The method of claim 8 wherein the follow-up questions are provided using an interactive graphical interface customized for a given patient based upon at least one of received specific patient information and received further patient information.

18. The method of claim 17 wherein the interactive graphical interface includes multimedia elements selected from the group consisting of: (a) images, (b) sound, (c) video clips, and (d) animations.

19. The method of claim 17 wherein the interactive graphical user interface includes a touch-screen computer monitor.

20. The method of claim 17 further including the steps of receiving further patient

information in voice form and electronically recording the further patient information.

21. The method of claim 16 wherein the step of analyzing further includes the step of applying a quality-of-life assessment to at least one of the received specific patient information and received further patient information so as to provide a predicted assessment of the proposed treatment strategy.

22. The method of claim 21 wherein the quality-of-life assessment considers at least one of frequency of symptoms, severity of symptoms, and disruption of functions and activities of daily living.